DOCUMENT SECTION

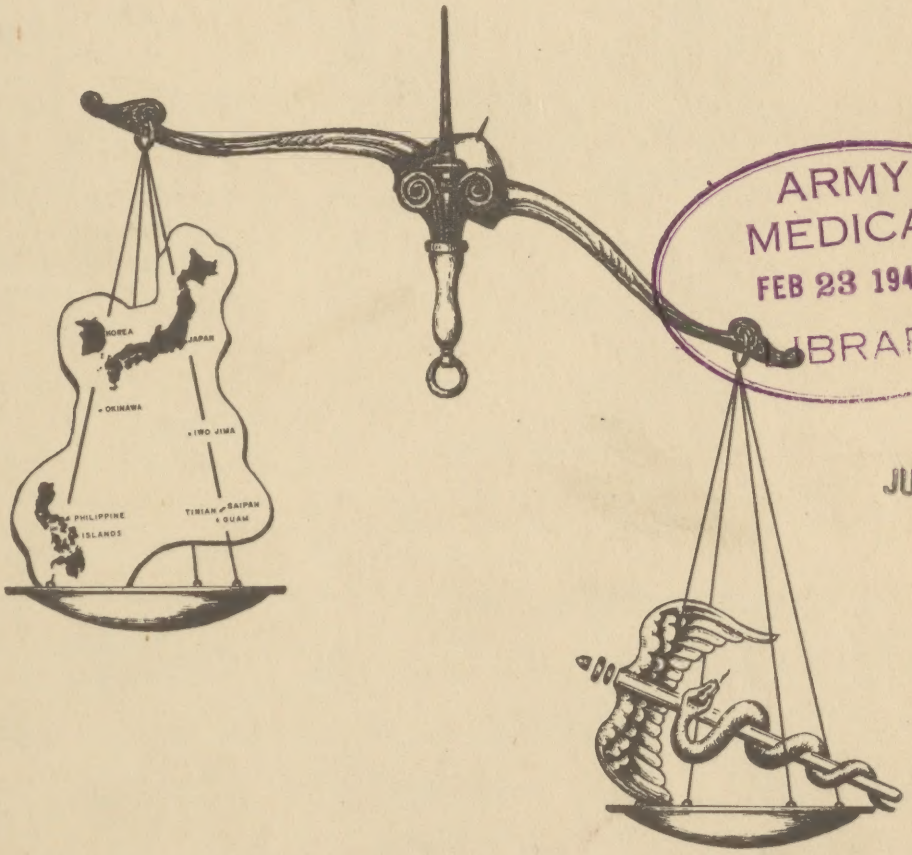
INDEXED

RESTRICTED

MED. SEC. GHQ. FEC.

DOCUMENT SECTION

VOL IV NO 2
1 FEB 1949



ARMY MEDICAL
FEB 23 1949
LIBRARY

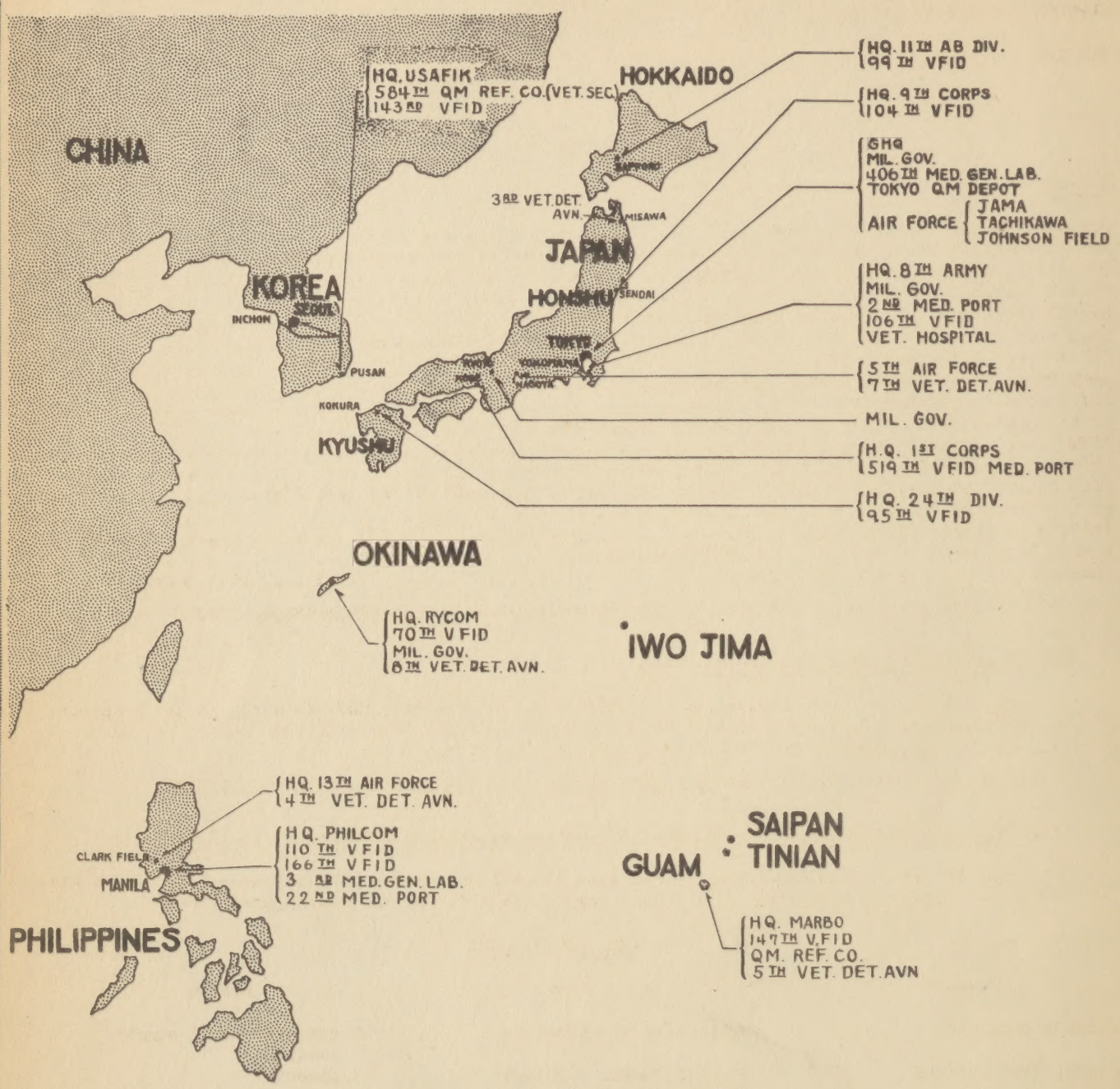
JUL 13 1949

A FAR EAST PERIODICAL OF MEDICAL DEPARTMENT INFORMATION

SURGEON'S CIRCULAR LETTER

RESTRICTED

DISTRIBUTION OF VETERINARY UNITS, FEC



The above map shows the assignment and location of the Veterinary officers and Veterinary Food Inspection Detachments within the Far East Command.

Upon arrival Veterinary personnel are screened by representatives of the Medical Section, GHQ, FEC, and are assigned according to their qualifications.

GENERAL HEADQUARTERS
FAR EAST COMMAND
MEDICAL SECTION

SURGEON'S CIRCULAR LETTER APO 500

NUMBER. . . . . 2 1 February 1949

PART I

ADMINISTRATIVE

SUBJECT	SECTION
Organization of the Medical Section.	I
Announcement of Tentative Courses for Medical Department Officers - Fiscal Year 1950	II
Medical Assistants School, Osaka, Japan.	III
Dental Service	IV
Recall of Reserve Officers to Extended Active Duty	V
Inquiries from Draft-Age Doctors on their Status under Selective Service Act	VI
72% Medical Rejections	VII
Army Nurse Corps Observes 48th Anniversary	VIII
3rd Hospital Administrative Corps Class.	IX
Civil Service Posts Open to Physicians in Canal Zone	X
Blood Ethyl Alcohol Requisition Slip	XI
Clarification of Instructions for Monthly Dental Report.	XII
Rationing of Stock No. 1-352-350, Pitocin Ampules, 10 Oxytocic Units, lcc. 25s	XIII
Mold Preventive for Book Bindings.	XIV
Indexing Japanese Journals	XV
Recent Department of the Army and FEC Publications	XVI
Index.	Inside Back Cover

I. Organization of the Medical Section

Arrival in the Medical Section. Lt Colonel Allen J. Blake, MSC, formerly in the Surgeon's Office, Headquarters XXIV Corps, arrived in the Medical Section, General Headquarters, Far East Command, and was assigned to the Plans and Operations Division.

II. Announcement of Tentative Courses for Medical Department Officers - Fiscal Year 1950

The following tentative program has been established by The Surgeon General for the training of Medical Department officers in civilian institutions during the fiscal year 1950:

ARMY NURSE CORPS

Course	School	Length
Nursing education	University of Minnesota	3 quarters and 2 summer sessions
Psychiatric nursing	St. Elizabeths Hospital, Washington, D. C.	1 semester

DENTAL CORPS

Anesthesia and oral surgery	University of Pennsylvania	3 terms
Oral surgery	University of Michigan	1 calendar year
Periodontia	Tufts College Dental School	1 semester

VETERINARY CORPS

Course	School	Length
Bacteriology and virology	Rockefeller Institute for Medical Research	1 calendar year

MEDICAL SERVICE CORPS

Advanced physical reconditioning and rehabilitation	Columbia University	3 semesters
Bacteriology and virology	University of Illinois	2 semesters
Biochemistry	New York University	2 semesters - 1 summer session
Business administration	Columbia University	2 semesters
Entomology	The Johns Hopkins University	3 quarters
Parasitology	New York University	2 semesters
Personnel management and administration (may be MC or MSC)	George Washington University	4 terms
Physical education in physical and mental rehabilitation	Springfield College	4 terms
Psychiatric social work	Columbia University (New York School of Social Work)	2 terms or 3 quarters
Psychiatric social work	University of Pennsylvania	2 terms or 3 quarters
Psychiatric social work	University of Chicago	2 terms or 3 quarters
Psychiatric social work	Washington University, St. Louis, Missouri	2 terms or 3 quarters
Sanitary engineering	The Johns Hopkins University	3 quarters
Serology	New York University	2 semesters

MEDICAL CORPS

Allergy	University of Illinois	1 calendar year
Anesthesia	Massachusetts General Hospital	1 calendar year
Anesthesia	University of Colorado	1 calendar year
Aviation physiology	Northwestern University (alternate: Univ. of Rochester)	2 semesters
Cardiology	Harvard Medical School	2 semesters
Children's orthopedics	Carrie Tingley Hospital for Crippled Children, Hot Springs, N.M.	1 calendar year
Children's orthopedics	Shriners Hospital for Crippled Children, San Francisco, Cal.	1 calendar year
Children's orthopedics	Shriners Hospital for Crippled Children, Chicago, Illinois	1 calendar year
Dermatology and Syphilology	University of Pennsylvania	3 terms
Hospital administration (may be MC or MSC)	University of California	2 semesters
Hospital administration (may be MC or MSC)	Northwestern University	2 semesters
Internal medicine	University of Pennsylvania (alternate: Tufts)	2 terms
Orthopedic surgery	Barnes General Hospital	1 calendar year
Personnel administration (may be MC or MSC)	George Washington University	3 terms
Plastic surgery	Barnes General Hospital	1 calendar year
Public health (Staff Medical Corps, Staff Air Force, and Preventive Medicine)	Harvard University	2 semesters
Public health (Preventive Medicine, Veterinary Corps, Staff Army, and Staff Air Force)	Johns Hopkins University	3 quarters
Public health	University of Minnesota	3 quarters

Course	School	Length
Public Health (preventive medicine	University of California	2 semesters
Public Health (preventive medicine	University of Michigan	2 semesters
Radiology	Massachusetts General Hospital	1 calendar year
Radiology	Mayo Foundation	1 calendar year

WOMEN'S MEDICAL SPECIALIST CORPS

PHYSICAL THERAPIST SECTION

Physical therapy: Treatment of infantile paralysis and orthopedic conditions	Undetermined	Approx: 6 months
Physical therapy	Undetermined	Approx: 3 semesters

DIETITIANS

Institution management	Undetermined	2 semesters and 1 summer session
Nutrition	Undetermined	2 semesters and 1 summer session

OCCUPATIONAL THERAPY

Occupational therapy	Undetermined	2 terms
Training in occupational therapy (neuropsychiatry)	Undetermined	5 months

Eligibility for application. - Medical Department officers of the Regular Army are eligible to apply to the Surgeon General for the courses listed above either at the civilian institutions listed, or schools of the applicant's own choice. Members of the Army Nurse Corps selected for training in nursing education must have special interest in and adaptability for a teaching assignment and/or an assignment as nurse supervisor. Forwarding indorsements should not be perfunctory but will give in full a carefully considered estimate of the applicant's abilities and prospective potentialities for the type of instruction desired. Applicants will be considered individually to the end that selection and assignment is made of those best qualified for advanced study.

Application procedure. - Training at civilian institutions is restricted to personnel who have completed their undergraduate training except training in short term (5 months or less) specialized training courses which are conducted in connection with essential Army activities. Requests from individuals for training in these courses will be submitted through channels so as to reach the Surgeon General, Attention: Career Guidance Branch, Personnel Division, not later than 1 February 1949.* Application blanks required by the civilian schools concerned will be forwarded by the Surgeon General to individuals selected for training. The certificate required by paragraph 6c, Circular 257, War Department, 1947, will be forwarded as an inclosure in each case. Transcripts of academic records will accompany applications. In no instance, where courses are to be taken at the expense of the Government and not of the individual, will applications be submitted direct to the civilian institution concerned. The Surgeon General will make necessary arrangements for admission, including contractual arrangements for pay of registration, tuition, laboratory fees, cost of thesis, infirmary fees, library fees, graduation fees, and consumable instructional material, including consumable texts and periodicals, which are required by the school, which constitute a compulsory expense to the student, and which are not otherwise furnished through Army supply channels.

Supplies. - In certain courses, such as dental, where required instruments and supplies

*(ED NOTE: The time for application cannot be extended as selection among all applicants will have to be made shortly after 1 Feb 49. However, CINCFE has been informed by the Department of the Army that the names of such officers will be considered for a particular course if name and type of course desired is submitted by radio for selection by The Adjutant General with regular application following by mail.)

are not furnished by the school, a complete itemized list will be forwarded to the Surgeon General as a separate inclosure with the application. Upon approval of the request for training, steps will be taken by the Surgeon General to furnish the required items so far as possible.

(DA Circular 392 and AF Letter 160-22, dated 17 Dec 48)

III. Medical Assistants School, Osaka, Japan

The Far East Command is confronted with an impending shortage of Medical Corps officers during 1949. In making necessary plans to meet this shortage, it is considered advisable to train selected Medical Department officers assigned to this command* in the duties of Medical Inspector and Medical Assistant, especially for duty with tactical units and at dispensary level. The following school has been initiated by Eighth Army to train MSC's to substitute for MC officers as Medical Inspectors and for screening and minor treatment duty at sick-call.

The first course of the Far East Command Medical Assistants (MOS 3506) School will be held in Osaka, Japan. It is intended that approximately 50 MSC officers will attend this course which will start on 7 February and last for 30 days.

The curriculum is being established by officers who have had training at a previous school conducted at Camp Barkeley, Texas. Colonel W. L. Peterson, MC, of Eighth Army will be responsible for the actual accomplishment of the course and for procuring instructors.

The similar course at Camp Barkeley was established during 1944. The Barkeley School was scheduled for 6 weeks, but it is planned that the school to be established by Eighth Army will eliminate drill, physical training and many of the administration courses which should enable them to concentrate the Medical Assistants School's schedule into a 30-day training period.

A second course will begin on or about 7 March. It is planned that this class will also include 50 MSC officers.

The objective of the School is to provide training in preventive and first-aid services to selected Medical Service Corps officers in order to more adequately assist medical officers with such of their duties as are not professional in nature.

TENTATIVE MASTER SCHEDULE

Course	Weekly Hour Breakdown 1	2	3	4	TOTAL
Anatomy and Physiology	2	3	2	3	10
Emergency Care and Treatment	3	11	4	5	23
Field Sanitation and Enteric Diseases	5				5
Medical and Surgical Procedures and Technic	8	10	10	8	36
Inspections, Sanitary	4	8	12	12	36
Materia Medica, Toxicology and Pharmacy	7	3			10
Personal and Sex Hygiene		2			2

TENTATIVE MASTER SCHEDULE (Cont'd)

Course	Weekly Hour Breakdown 1	2	3	4	TOTAL
Administration	4				4
X-Ray Reading	3				3
Troop Information Program	1	1	1	1	4
Commandant Time	3	2	1	1	7
Application			10.	10	20

*(ED NOTE: The applicants for the first course will be largely MSC officers currently assigned to Eighth Army, but it is planned that for the second course MSC officers will be brought from the Philippines, Okinawa, Guam, and Korea.)

IV. Dental Service by Colonel Melville A. Sanderson, DC, Dental Surgeon, Medical Section, General Headquarters, FEC

A plan to obtain more dentists for the Regular Army Dental Corps has been outlined in Army Circular 339, 28 October 1948.

Under the plan, the Army has authorized undergraduate training for 300 selected senior dental students who are matriculated in dental schools considered appropriate by the Department of the Army.

Students selected for this program will be commissioned initially as 2nd Lieutenants in the Medical Service Corps Reserve. They will pursue their studies in their respective schools as reserve officers on active duty with full pay and allowances until they complete the academic requirements for a degree of DDS or until completion of the academic year in which enrolled at time of commission.

Following the completion of their dental education, they will be obligated to accept an appointment as first lieutenant in the Dental Corps Reserve; apply for, and accept if tendered, an appointment as first lieutenant in the Regular Army Dental Corps; and serve not less than two years at an Army installation in either capacity.

Appointment in the Dental Corps Reserve will be tendered within sufficient time so that it can be accepted immediately upon graduation. Application for a Regular Army appointment will also be submitted immediately upon graduation under provisions of AR 605-20.

An initial selection of 300 principal and 100 alternates in the Medical Service Corps Reserve will be made by a board designated by the Department of the Army.

V. Recall of Reserve Officers to Extended Active Duty.

To reduce the time required to process applications of Reserve officers for extended active duty in the Army, new processing procedures have been adopted and the number of facilities authorized to accomplish final-type physical examinations for applicants has been increased.

Under the new system, Reserve officers desiring recall to extended active duty from an inactive status will submit their applications and allied papers direct to The Adjutant General, (EM in the Far East Command will continue to submit papers through channels). As a general rule, telegraphic notice that the officer has been accepted or rejected will be dispatched within eight days after receipt of application in the Department of the Army. Necessary orders or appropriate

letter of rejection, stating reasons, will follow by mail.

All officers desiring recall, including Chaplains and members of the Medical Department, are required to submit a Report of Final Type Physical Examination and a Personal History Statement, Short Form, with their applications. In order to reduce travel and expense, recruiting main stations are now authorized to give physical examinations to applicants who are under 40 years of age. Applicants more than 40 years old requiring final type examination must still report to the nearest Army or Air Force medical facility.

VI. Inquiries from Draft-Age Doctors on their Status under Selective Service Act

Secretary of Defense James Forrestal stated that the Surgeon General of the Army has received numerous inquiries from draft-age doctors and dentists concerning their present and future status under the Selective Service Act. Mr. Forrestal pointed out that Reserve commissions are available in the Medical and Dental Corps of the Army and that while the acceptance of such commission by a draft-eligible would not of itself constitute deferment from the draft but it would be evidence of his willingness to serve where the Army could best use him and may be presented to the local board in support of a request for deferment.

VII. 72% Medical Rejections

Major General Lewis B. Hershey, Director of Selective Service stated that he does not believe there are 6 million men in the entire population of the United States who can pass present day standards for induction into the Army. The General made this statement following a report by a Selective Service official that 72% of 44,000 men examined in 43 states since early November have been rejected.

Although this is double the wartime rejection rate of 35.8%, it can be partically accounted for by stricter physical standards.

VIII. Army Nurse Corps Observes 48th Anniversary

On 2 February 1949 the Army Nurse Corps will celebrate its 48th anniversary. Although history is replete with the valiant services rendered by American women since the Revolutionary War, it was not until 16 April 1947 that members were granted permanent commissions in the Regular Army. During World War II they operated as officers with a relative rank status.

Included in the same Act of Congress establishing the ANC, an Active Reserve Section for Women in the Officers' Reserve Corps was created and a new department of Women's Medical Specialist (physical therapists, dietitians and occupational therapists) was organized, both Regular and Reserve. Prior to the establishment of the Nurse Section of the Officers' Reserve Corps, the enrolled membership of the American Red Cross Nursing Service was considered the "reserve" of the Army Nurse Corps.

All graduate, registered nurses at least 21 years of age may apply for appointment in the Reserve Corps. Nurses who have had no military service who request and are called to active duty will be given an eight weeks period of basic military training and orientation at the Brooke Army Medical Center, Fort Sam Houston, Texas. Initial call to active duty will be for a period of one year. Nurses who apply for Reserve appointments and do not desire to be called for extended active duty, will be assigned to the Army Headquarters which is responsible for local Reserve activities. Applications for Reserve appointments in the Army Nurse Corps (DA Cir 210-14, July 48) should be directed to The Adjutant General, Attention: AGPR-A, Washington 25, D.C.

IX. 3rd Hospital Administrative Corps Class

Currently the third class in Hospital Administration at the Medical Field Service School, Brooke Army Medical Center, Fort Sam Houston, Texas, is in session. This class started 10 January 49.

The curriculum of the 20-week course is designed to qualify officers of the Medical Department to function efficiently in administrative positions within our Army hospitals. Applicants for the Hospital Administrative Course must be officers of the Medical Service Corps, Regular Army, or Army Nurse Corps, Regular Army. The MSC officers must have completed at least 5 years active commissioned service as of 1 November 1948 while the nurses must have completed 5 years administrative as of the same date in the capacity of Chief Nurse or Assistant Chief Nurse in Army hospitals.

X. Civil Service Posts Open to Physicians in Canal Zone

Major General Raymond W. Bliss, Army Surgeon General, discloses that permanent Civil Service appointments for physicians are now available in the Panama Canal Medical Service. Doctors accepted will serve as physicians in out-patient treatment centers maintained by the Panama Canal Health Department.

Salaries range from $5,599 to $7,794, with free transportation to and from the Canal Zone of the medical men, their families and household goods.

Interested physicians should communicate with the Office of The Surgeon General, Department of the Army, Washington 25, D.C.

XI. Blood Ethyl Alcohol Requisition Slip

The "Blood Ethyl Alcohol Requisition Slip", in use at the 28th Station Hospital, Osaka, Japan, is reproduced below for the information of all hospitals in the Far East Command.

Obverse Side

BLOOD ETHYL ALCOHOL REQUISITION SLIP

•• ALCOHOLIC INTOXICATION REPORT ••

Date of Examination _____ Time _____

_____ _____ _____ _____
(Name of Patient) (Grade) (ASN) (Organization)

PART I

Clinical Findings:

Condition of Clothes, Bloody, Mussed etc. _____
Patient brought to Hospital by _____
Examination requested by _____
Behavior and Orientation _____
Cooperative or Non Cooperative _____
Voice, (Slurring etc.) _____
Stability (Walking) _____
Eyes: Condition of Pupils _____
Reflexes: Rhomberg, Finger to Nose etc. _____
_____
ODOR of Breath _____
Patient (is) (is not) under the Influence of Alcohol.
Clinically he (is) (is not) drunk.
(The above report will be completed in full by the examining Medical Officer at the time of the examination)
Remarks: _____

_____ MC.
(Examiner)

PART II

I certify that the Blood for this test was drawn under my supervision and that the rules for drawing the blood as specified by the Laboratory of this hospital have been observed. The specimen was drawn at _____
(Time) (Hrs)

_____ MC.
(Name) (Rank)

PART III

I certify that I drew the blood for a Blood Alcohol Analysis from the patient whose name appears above and that the specimen was taken to the Laboratory by me and given to a responsible person and was not tampered with enroute.

_____
(Name) (Rank)(ASN)

28th SH Form #606-B (Revised 20 Sept 48)

Reverse Side

PART IV

I certify that I received the Blood specimen mentioned above at _____ (Hrs.)
and that after properly sealing the specimen I placed it in refrigeration under lock and key. The specimen was not tampered with while in my keeping _____ (Name)

_____
(Rank)

_____
(If test was done immediately so indicate on this line)

PART V

Specimen removed from refrigeration by _____ (Initial)
Test done at _____ (Hrs.)
Test done by _____ (Initial)

Method used _____

Result of test for Blood Alcohol _____ Mgs per cc of Blood _____

I certify that the test was done by me or by one of the qualified Laboratory technicians and is accurate within the limits of normal chemical and human error and that final reading was done by me.

_____
(Chemist)

PART VI

I certify this is a true copy.

_____ MC.
(Laboratory Officer)

Requirements for Test:

10 cc of Blood with Lithium Oxalate in test tube with stopper paraffin sealed.
••••One Acetone for Antiseptic !!! NOT ALCOHOL •••

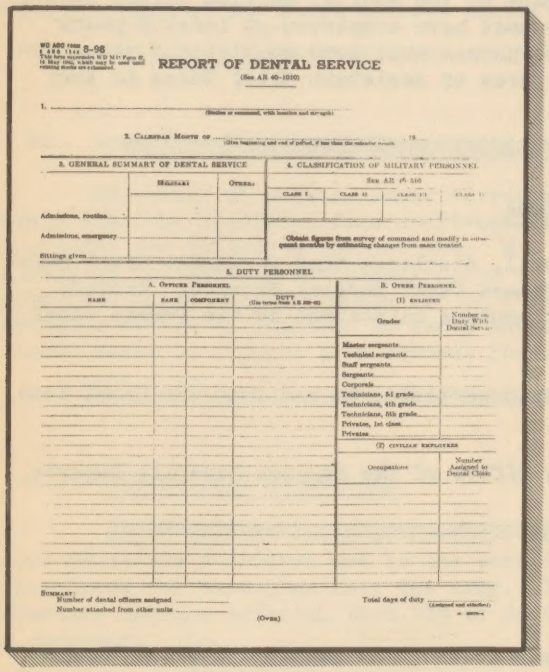
This form (28th SH Form #606-B) will be used for requesting blood ethyl alcohol tests. The first half of the form contains the clinical brief to be filled in by the examining medical officer. It contains statements as to reflexes, orientation etc. and the clinical impression of intoxication. The first half of the form will be completed in full by the examining medical officer and the entire form will be sent to the laboratory with the blood specimen. The procedure for obtaining the blood specimen and the interpretation of the laboratory results is outlined above. A copy of the completed form will be sent to the requesting medical officer on completion of the laboratory tests.

Another form, (28th SH Form #606-A) will be used to request blood methyl alcohol tests.

28th SH Form #606-B (Revised 20 Sept 48)

XII. Clarification of Instructions for Monthly Dental Report by Colonel Melville A. Sanderson, DC, Dental Surgeon, Medical Section, GHQ, FEC

Information clarifying and standardizing the rendering of WD AGO Form 8-98 (Report of Dental Service), shown below, has been received in a memorandum from the Dental Division, Office of The Surgeon General. Certain data concerning civilian dentists are of special interest. Instructions enumerated below are suggested for the compilation of the January report.



WD AGO Form 8-98
REPORT OF DENTAL SERVICE
(See AR 40-1010)

1. _____
(Station or command, with location and air-mail)

2. CALENDAR MONTH OF _____ 19__
(Give beginning and end of period, if less than the calendar month)

3. GENERAL SUMMARY OF DENTAL SERVICE

	Military	Others
Admissions, routine		
Admissions, emergency		
Sittings given		

4. CLASSIFICATION OF MILITARY PERSONNEL
See AR 40-510

CLASS I	CLASS II	CLASS III	CLASS IV

Obtain figures from survey of command and modify in other quarterly months by estimating changes from cases treated.

5. DUTY PERSONNEL

A. OFFICER PERSONNEL

NAME	RANK	COMPONENT	DUTY (Use terms from AR 600-10)

B. OTHER PERSONNEL

(1) ENLISTED

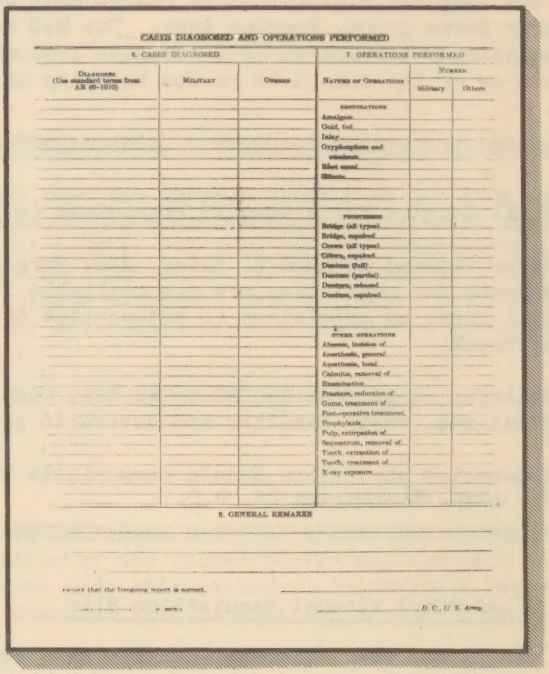
Grades	Number on Duty With Dental Service
Master sergeants	
Technical sergeants	
Staff sergeants	
Sergeants	
Corporals	
Technicians, 5th grade	
Technicians, 4th grade	
Technicians, 5th grade	
Privates, 1st class	
Privates	

(2) CIVILIAN EMPLOYEES

Occupations	Number Assigned to Dental Clinic

SUMMARY:
Number of dental officers assigned _____
Number attached from other units _____
Total days of duty (Assigned and attached) _____

(Over)



CASES DIAGNOSED AND OPERATIONS PERFORMED

6. CASES DIAGNOSED

Diagnoses (Use standard terms from AR 40-1010)	Military	Others

7. OPERATIONS PERFORMED

Nature of Operations	Number Military	Number Others
RESTORATIONS		
Amalgam		
Gold, foil		
Inlay		
Cryptosphate and cements		
Silver cement		
Silicate		
PROSTHESIS		
Bridge (all types)		
Bridge, repaired		
Crown (all types)		
Crown, repaired		
Denture (full)		
Denture (partial)		
Denture, relined		
Denture, repaired		
OTHER OPERATIONS		
Abscess, incision of		
Anesthesia, general		
Anesthesia, local		
Calculus, removal of		
Examination		
Fracture, reduction of		
Gums, treatment of		
Post-operative treatment		
Prophylaxis		
Pulp, extirpation of		
Sequestrum, removal of		
Tooth, extraction of		
Tooth, treatment of		
X-ray exposure		

8. GENERAL REMARKS

_____

_____

_____

through which the report passes. This report is no longer considered confidential, secret, or restricted. Provisions of AR 40-15 require the Dental Surgeon to furnish the Surgeon with an information copy of this report."

XIII. Rationing of Stock No. 1-352-350, Pitocin Ampules, 10 Oxytocic Units, 1 cc. 25s

Port Medical Supply Information Letter No. 638 published by the Office of The Surgeon General contains the information that stocks of subject item are extremely limited and will continue to be so for at least another year. Present quantities on hand cannot be supplemented by procurement during that period of time and it is therefore necessary that conservation measures in the use of Pitocin Ampules be instituted at once.

Several items, such as nonstandard Pituitrin and Standard Stock No. 1-177-500, Ergonovine Maleate Injection, 0.2mg. (1/320 gr.), 1cc., 12s, can be used in place of Pitocin Ampules and should be employed wherever possible in an effort to retain stocks of subject item for use in those cases where the suggested substitutes will not suffice.

XIV. Mold Preventive for Book Bindings

During the coming rainy season in the Far East Command, book bindings will often be found supporting a heavy growth of mold. This mold not only disfigures the books but is injurious since it actually grows in the paste of the bindings. Mere dusting will only remove the superficial growth.

Hetherington of Duke University[1] has found the following solution to be effective in controlling such book mold:

R_x	Thymol crystals.	10 grams
	Mercuric bichloride.	4 grams
	Ether.	200 cc
	Benzene.	400 cc

This solution is poisonous and inflammable. It should be applied outdoors or in a well-ventilated room. Careful fire precautions should be used. It is best applied with a cotton sponge tied to a suitable applicator so that none of it gets onto the fingers. The solution penetrates the binding readily and dries rapidly, leaving no precipitate. One application is usually sufficient and books may be returned at once to their places.

[1]"Mold Preventive for Book Bindings", Duncan C. Hetherington, Science, 101:223, 2 March 1945

XV. Indexing Japanese Journals

The increased acquisition of Japanese publications by the Army Medical Library, Washington, D.C., has necessitated the organization of an extra team of catalogers in the Index-Catalogue Division, to handle Japanese publications published without romanized abstracts. Japanese journals have been handled previously by a member of the Index-Catalogue Division staff largely as an avocation, in his spare moments. It is gratifying, therefore, that a team of analyzers can now devote full time to cataloging original Japanese journal articles. The entries prepared for the Index-Catalogue will appear also in the Current List of Medical Literature with short translated titles.

XVI. Recent Department of the Army and FEC Publications

AR 600-375, C-1, 18 Nov 48 - Prisoners, General Provisions

AR 40-20, C-1, 30 Nov 48 - ANC Officers

AR 40-25, C-3, 30 Nov 48 - WMSC Officers

DA Cir 329, 21 Oct 48 - Sec V, 7b(1) and 7c(1)(a). Physically Qualified for General Service. Short Tours Active Duty for ORC

DA Cir 346, 3 Nov 48 - Sec VI, Changing DA Cir 329, 1948, Sec V, par 7b(1)

DA Cir 358, 17 Nov 48 - Sec I: "Application by Medical Officers for Certification as Specialists by Interim Board of Preventive Medicine"

DA Cir 361, 19 Nov 48 - Sec IV: Streptomycin, 1 gm (Medical Item 1-609-840) dating period extended

DA Cir 369, 1 Dec 48 - Sec I, Equipment

DA Cir 375, 3 Dec 48 - Annual Physical Examination for 1949 Suspended except for Pilots over 40 years old

DA Cir 381, 3 Dec 48 - Sec II, Dental Officer Procurement - Senior Student Program. Par 1, DA Cir 339, 1948, rescinded

DA Cir 386, 13 Dec 48 - Hospitalization in Army Hospitals of Personnel of other Federal Agencies; Par 2d DA Cir 176, 1948, rescinded and substitution made

DA Cir 392, 17 Dec 48 - Announcement of Tentative Courses for Medical Department Officers - Fiscal Year 1950 (See Art. II, page 1, this issue)

DA Cir 394, 21 Dec 48 - Sec III, Report of Treatment Furnished Pay Patients (BEC) Reports Control Symbol MED-45. Par 1b, DA Cir 175, 1948, changed and recission substituted

ARMY-NAVY Catalog of Medical Materiel November 1948. Spare Parts Section No. 7-129-305

ARMY-NAVY Catalog of Medical Materiel November 1948. Spare Parts Section No. 7-132-005

SR 55-125-1, 8 Dec 48 - Transportation of Navy Patients in Army Hospital Cars

SR 50-140-1, 17 Dec 48 - Sanitation - Insect Control by Aircraft

SR 40-590-41, 27 Dec 48 - Medical Service: Admission and Treatment of Members of United States Army Reserve Corps and United States Air Force Reserve in Medical Facilities of the Department of the Army on a Reimbursable Basis

T/O&E 1-1454, 27 Sep 48 - Strategic Reconnaissance Squadron, ECM - Sec III

T/O&E 1-2115, 12 Oct 48 - Geodetic Squadron. Sec III

T/O&E 1-1005, 12 Oct 48 - Hqs and Hqs Squadron, Air Division, Sec III

T/O&E 1-9012, 18 Oct 48 - Medical Group (For Air Force Units) - To provide and maintain medical services for Air Force Units; Wings, Separate Hqs, Depots, etc.

T/O&E 8-27, 28 Oct 48 - Medical Collecting Company, Separate

T/O&E 8-26, 28 Oct 48 - Hqs and Hqs Detachment, Medical Battalion, Separate

T/O&E 55-117, 28 Oct 48 - Transportation Port Company (Type A): Sec III, A.

T/O&E 55-118, 28 Oct 48 - Transportation Port Company (Type B); Sec III

T/O&E 8-571, 28 Oct 48 - Mobile Army Surgical Hospital

T/O&E 1-0001 A, 1 Nov 48 - Index and Summary of Changes to Air Force Tables of Organization and Equipment

T/O&E 10-157, 5 Nov 48 - Quartermaster Sales Company, Mobile

T/O&E 55-37, 15 Nov 48 - Transportation Amphibious Truck Company

T/O&E 6-75, 16 Nov 48 - Field Artillery Observation Battalion

T/O&E 8-667, C-1, 26 Nov 48 - Medical Depot Company, Combat Zone

T/O&E 8-667, 26 Nov 48 - Army Medical Depot

T/O&E 9-76, 30 Nov 48 - Hqs and Hqs Detachment Ordnance Battalion. Sec III

T/O&E 10-77, 3 Dec 48 - Quartermaster Petroleum Supply Company (Mobile). Sec III

T/A 8-7, 4 Oct 48 - Medical Department Field Research Laboratory

Medical Dept Equipment Lists: No. 2, Jul 48; No. 6, Sep 48; No. 12, Sep 48; No. 13, Sep 48; No. 16, Sep 48; No. 17, Aug 48; No. 18, Sep 48

GHQ FEC Cir 56, 28 Dec 48 - Venereal Disease Control.

PART II

TECHNICAL

SUBJECT	SECTION
Length of Stay of Patients in Hospitals.	XVII
Recent Advances in Renal Physiology.	XVIII
The Poliomyelitis Patient.	XIX
The Use of the Respirator in Poliomyelitis	XX

XVII. Length of Stay of Patients in Hospitals

As the present critical shortage of medical personnel becomes more acute, it will be mandatory that every effort be made to conserve MC personnel. Towards this end the Office of the Surgeon General is conducting studies of hospital operational methods now in effect in Army and Air Force hospitals in the zone of interior.

Part of the studies concern variations in the length of stay of patients in hospitals. Abstracted information pertinent to this factor from selected zone of interior general and station hospitals is summarized for information for Medical Department personnel of the Far East Command as follows:

Analysis of 26,200 dispositions from selected Army and Air Force station hospitals during January-March 1948 showed that 4,700 were from general hospitals, 9,600 from Army station hospitals and 11,900 from Air Force station hospitals. Corresponding data for the 16,000 dispositions of non-Army patients were 5,200, 6,500 and 4,400, respectively. Average duration of stay of Army and Air Force patients was 50 days in general hospitals, 14 days in Army station hospitals and 10 days in Air Force station hospitals. Corresponding average duration of stay of non-Army patients was 14, 7 and 7 days respectively.

The following represents the total length of time spent in the hospital and includes hospitalization prior to transfer to hospital where final disposition occurred. Patients have been classified according to diagnosis for primary cause of admission. For comparison between general and station hospitals, 14 specific diagnosis were selected:

	Number of Cases			Average Duration of Stay Per Case		
	Gen. Hosp	Sta. Hosp. Army	Sta. Hosp. AF	Gen. Hosp	Sta. Hosp. Army	Sta. Hosp. AF
Total of 14 Diagnoses	1900	3891	5717	16	10	8
Gonococcal Infections	122	85	36	16	13	9
Pneumonia, Pneumococcal	33	55	46	29	29	14
Influenza, Uncomplicated	11	48	116	9	7	5
Measles, Uncomplicated	4	19	33	12	10	8
German Measles, Uncomplicated	26	455	467	13	4	3
Mumps, Uncomplicated	39	111	126	16	13	14
Nasopharyngitis, Uncomplicated	622	1118	1542	8	5	5
Other Acute Upper Respiratory Infections	206	593	1222	11	7	6
Tonsillitis	328	644	997	12	8	6
Bronchitis	189	206	304	22	10	7
Pneumonia, Atypical	128	249	421	36	25	19
Appendicitis	85	129	161	34	28	17
Hernia	79	102	134	47	44	27
Reactions to Drugs, Vaccines, Sera	28	77	112	10	6	6

The number of dispositions of Army and Air Force patients in these selected diagnoses totaled 11,500 or 44% of the total number of station hospital type dispositions of military patients from the hospitals in the sample during this period. Based on these dispositions, the average duration of stay of patients was 16 days in general hospitals, 10 days in Army station hospitals and 8 days in Air Force station hospitals. The average duration of stay of military patients was longer than that for civilian and other patients in most of the selected diagnoses. An analysis by type of hospital follows:

General Hospitals. The average duration of stay for patients in general hospitals exceeded that in Army and Air Force station hospitals in all diagnoses, except for pneumococcal pneumonia. For this diagnosis the average duration of stay was the same in general hospitals and Army station hospitals, but was considerably lower in Air Force station hospitals. Longer durations are particularly noticeable in such diagnoses as bronchitis, appendicitis, German measles, and atypical pneumonia. Almost two-thirds of these 11,500 dispositions of Army and Air Force patients were, however, in nasopharyngitis, other acute upper respiratory infections and tonsillitis classifications in which the average durations of stay in general hospitals were in closer alignment with that of station hospitals.

Army Station Hospitals. Except for pneumonia, appendicitis, and hernia diagnoses, no large variations existed in the duration of stay of patients between station hospitals serving the Army and the Air Force. For these three diagnoses, the average duration of stay in Army Station hospitals was longer than in Air Force station hospitals.

Air Force Station Hospitals. Except for mumps, nasopharyngitis and reactions to drugs, vaccines and sera, the average duration of stay was the shortest among the three types of hospitals for all diagnoses.

Comparison of the average duration of stay for patients for diagnoses other than those selected above is meaningful only between Army and Air Force station hospitals. Except for rheumatic fever and psychiatric diseases, excluding psychoneurosis, the average duration of stay for military patients for practically all diagnoses is slightly longer in Army station hospitals than in Air Force station hospitals. Wide variations are particularly noticeable, however, for the following diagnoses:

	Average Duration of Stay Per Patient (No. of Days)		Proportion of Cases Having Multiple Diagnosis	
	Army StaHosp	AF StaHosp	Army StaHosp	AF StaHosp
Fractures, Simple or Unqualified	49	26	19.5	10.7
Sprains, Strains, Dislocations	17	8	9.9	6.1
Neoplastic Diseases	20	15	23.5	13.8
Psychoneurosis	21	16	6.1	6.5
Diseases of Peripheral Vessels	19	12	13.1	7.8
Pilonidal Cyst	41	21	8.5	3.1
Asthma	25	16	19.4	5.6
Arthritis	27	15	14.3	8.0
Rheumatic Fever	54	67	27.3	23.1
Psychiatric Diseases (excluding Psychoneurosis)	14	19	15.2	11.9

The average duration of stay data for civilian and other patients indicate little variation between Army and Air Force Station hospitals for specific diagnoses other than the 14 selected diagnoses except as indicated below:

	Average Duration of Stay Per Civilian Patient	
	Army StaHosp	AF StaHosp
Sprains, Strains, Dislocations	11	5
Burns	14	7
Neurological Diseases	12	7
Male Genital Diseases	9	3
Arthritis	25	7

The wide variations listed above are based upon small numbers of cases and, therefore, are subject to limitation in their use.

The following conclusions may be drawn:

Station hospital type patients remain longer in general hospitals than in Army and Air Force station hospitals for practically every diagnosis.

General hospitals located in Class I installations apparently hold patients with diseases of the upper respiratory system longer than other general hospitals.

Station hospital type patients remain longer in Army station hospitals than in Air Force station hospitals.

Large size station hospitals, particularly Army station hospitals, apparently hold patients slightly longer than small size hospitals.

Air Force station hospitals apparently hold patients having rheumatic fever and psychiatric diseases other than psychoneurosis longer than Army station hospitals.

The average duration of stay for civilian and other patients was twice as long in general hospitals as in station hospitals; the average duration was the same for both Army and Air Force station hospitals.

Although differences in the average duration of stay for patients between general, Army station and Air Force station hospitals are attributable to a large extent to the different types of patients treated, the severity of cases, and the number of cases with multiple diagnoses and other complications, many administrative factors exist which contribute to holding patients in some hospitals longer than necessary. Some of these administrative factors may be:

Disposition Policies: Delay is often encountered in reassignment. The delays may be frequently caused by undue adherence to various schedules in hospitals, such as meeting of disposition boards, or the current procedures for the reassignment of patients.

Leave Policies: No uniform policy currently exists and differences among hospitals are indicated. The leave rate for station hospital type patients in general hospitals is approximately 10% compared to approximately 6% for Army station hospitals and about 3% in Air Force station hospitals.

Convalescent Policies: These vary between different types and sizes of hospitals in accordance with the attitudes of doctors, chiefs of services and commanding officers, and activities of reconditioning programs.

Transfer Policies: The availability of adequate facilities and personnel staffing of a hospital may determine the holding of patients with severe injuries or diseases. Conversely, the lack of these means may cause the immediate transfer of such patients to nearby general hospitals for definite treatment, e.g., (McChord AF Base Station Hospital transfers many of their station hospital type patients to Madigan General Hospital).

Size of Hospital: The tendency for patients to remain longer in larger size station hospitals and in general hospitals due to the size of the physical plant, may be a significant factor.

Administrative Procedures within Hospital: These vary between different hospitals and may be a factor in longer duration of stay for patients. For example: Delay in processing medical records, preparation of notification of discharge, etc.

Local Bed Requirement: The bed requirement, patient turnover and occupancy factors in a hospital may influence the time spent by patients. For hospitals that are full, there would be more likely a tendency to discharge the patients as rapidly as possible while the reverse may be true in hospitals that are not reasonably filled.

Availability of Consultants: The number and type of doctors in a hospital and the availability of consultants may cause longer duration of stay for patients particularly when consultants are available only at specific dates.

XVIII Recent Advances in Renal Physiology by Dr. Joseph M. Hayman, Civilian Consultant in Internal Medicine, and Professor of Medicine, Western Reserve University, Cleveland, Ohio. Notes taken by Maj. Harold E. McDonald, MC, at Lecture held at 49th Medical General Hospital, Tokyo, Japan

In order to talk about recent advances, I want to talk primarily about the so-called "Shock Kidney Technique". Here we have the normal glomerulus, proximal and distal tubules. By pressure the filtrate is separated from the blood plasma. This filtrate runs down the tubule and is modified by reabsorption and converted into urine containing glucose, salt, potassium, urea, creatinin, and other waste products. The process of reabsorption is completely proven in amphibians and mammals. In addition these processes are also aided by the active secretion of the tubule cells. The substances that are normally secreted consist of ammonia and amino acids. In man there are various foreign substances which can be introduced and are excreted by the tubules such as diadrast, penicillin, and perhaps creatinine. There has been much interest and many advances made in the study of renal physiology by the so-called "clearance technique". It follows that any substance that is filtered in the glomerulus and is neither re-absorbed or secreted can be measured as glomerular filtrate. Likewise any substance which is completely or almost completely eliminated from the blood stream can be used as a measure of renal blood flow.

The average figure for clearance taken from Chase's work is as follows:

Volume of Glomerular Filtrate	131 plus or minus 21.5 c.c./min.
Effective Renal Plasma Flow	697 plus or minus 135.9 c.c/min.
Maximum Tubular Excretory Capacity	51.8 plus or minus 8.75 Mg/min.
Filtration Fraction	0.19 plus or minus .002

Physiological Mechanisms of Oliguria and Anuria.

1. Anything that interferes with blood flow through the glomerulus would tend to lessen the amount of glomerular filtrate. Therefore, oliguria results. If reduction of blood flow is sufficient anuria ensues. Such a mechanism occurs in acute glomerulus nephritis where swelling of the capillary cells obstructs blood flow through the glomerulus.

2. Since the glomerular filtration depends upon capillary flow anything that reduces the pressure sufficiently would lead to cessation of filtration. Therefore no urine forms when the blood pressure is reduced below the critical level. In the frog, glomerular capillary pressure is approximately 50% of the systolic aortic pressure. In man with a systolic pressure of 120 mm of mercury, the glomerular capillary pressure would be about 60 mm and the osmotic pressure is 25 mm. Hence the effective filtration pressure is approximately 35 mm. If the systolic pressure is reduced to 70 the effective filtration pressure becomes 10 which is insufficient for urine formation. In such cases it is useless to attempt to stimulate urine formation by diuresis. The proper procedure is to restore the systolic blood pressure. Such conditions are seen in Addison's Disease, Traumatic Hemorrhage, Shock, and during prolonged operations, and sometimes in acute infections.

3. With a normal volume of glomerular filtrate in which for some reason complete reabsorption occurs you would have no urine reaching the bladder.

Since the war, you know there has been a lot of interest in the "Shock Kidney" described by Bywaters of London. This was noted first in the victims of air raids buried under debris with crushing injuries to the extremities, abdomen, and chest. Almost all exhibited some degree of shock but with proper treatment recovered from the shock only to develop oliguria and anuria, within the next 24 to 48 hours, subsequently dying of uremia. There were some soldiers in Italy and France who were wounded and treated with plasma and whole blood transfusions, recovering from their shock but within 24 to 48 hours developed oliguria and anuria and died within a week of uremia. In one of his reports, Churchill, Surgical Consultant in the Italian Theatre commented sadly that our improved surgical treatment and improved evacuation was simply saving these wounded men of their wounds only to die later of uremia. He did not understand it. Lucke of the Army Institute of Pathology studied sections of the kidneys from about 200 of these cases and found that the histology of the glomerulus and proximal tubules looked normal. The ascending loop of Henle showed destructive changes. He called this the lower nephron syndrome. Mallory also studied the histology and found that within 24 hours after injury the cells in the ascending loop of Henle showed trophic degeneration followed by necrosis within 24-48 hours. In some cases a hyalin material was found in the tubules which was thought to be myoglobin or hemoglobin. This did not occur in all cases however, hence blockage of the tubules was thought to be responsible for the anuria. This condition of lower nephron nephrosis is characterized by oliguria and passage of low specific gravity urine in contrast to acute nephritis where the urine volume is reduced to 100 c.c or less per day but the

specific gravity is high 1.020 or better. In these people, the urine volume may be 100 c.c. or less with a specific gravity of 1.010. That is exactly the same clinical picture that you see in bichloride poisoning, arsenic poisoning and carbon tetrachloride poisoning. The best explanation for the oliguria and anuria of both the heavy metal poisoning and shock syndrome is from the frog experiment of Richards who exposed the kidney and found there was a practically normal glomerulus in simulated above conditions, and yet not a drop of urine reached the ureter. Richards went one step further in trying to explain this. He took the kidney out of the frog and profused it through the renal artery with Ringer's Solution and the Ringer's Solution dropped out indicating no obstruction of the glomeruli. He then added protein to this profusing fluid and again the glomerular filtrate was normal, the filtrate being completely reabsorbed. The reabsorption force being the osmotic pressure, the tubule acting like the dead membrane. That explanation has not been proven for man. The end result however is the same.

When man goes into shock the effect on the kidney can be divided into two phases: (1) Immediate-low blood pressure. As long as the blood pressure is down there is no urine produced. If this is not too long standing the pressure returns to normal. The urine output is maintained. If however, the blood pressure stays at shock levels for more than a couple of hours, even though restored to normal the urine formation is very slow to return and a good many of the individuals will develop a uremia and die. In these instances the clearance tests which have been used in an attempt to study renal physiology are considerably reduced despite return of blood pressure to normal values. (2) Uremia and death.

How are you going to treat these people with tubular damage or metal poisoning? If the patient is taken to the hospital and is still passing urine then I would give him fairly large amounts of fluid either by mouth or intravenously in an attempt to keep urine formation going. You must have a definite plan of treatment. There is nothing I know of that will regenerate cells except possibly testosterone which takes from four to five days to regenerate. In using testosterone dosages of 600-700 milligrams per day are employed. Usually the patients are anuric four or five days. You can do more harm than good in attempting to establish urine flow by intravenous infusions during that period when anuria is present. During this period give only enough fluid to replace that which they have lost by vomitus, liquid stools, or perspiration. This is about a liter per day of 5% glucose in water rather than saline. After urine formation starts again you have the problem of trying to keep this man from dying of uremia until the cells have fully recovered. However, I told you the urine specific gravity is low. The concentration of urea in the urine is less than twice that in the blood so that after urine starts you will see patient's output rise 50 c.c., 200 c.c., 500 c.c., 1000 c.c., per day. The blood urea nitrogen in spite of a 1000 c.c. urinary output will continue going on up because the urine is so dilute. In such cases a urinary output of 3000 to 5000 c.c. per day is necessary. When the NPN starts to fall then they are getting over the danger period. People are different. You want to avoid pulmonary edema and overloading the heart after urination has started. Increased fluid intake by mouth is the only diurectic of any value.

You have heard of Truetta in England and his work regarding the renal shunt. His book is exceptionally well-written. His work is all based on experiments with rabbits. He applied a tourniquet to the rabbit's leg for three or four hours and then studied the effect of release of compression on the renal function. He also took x-rays of the kidney after injection with diadrast. Truetta's idea is that in shock the total renal flow is normal but that all the blood now goes into the deeper channels next to the medulla which have direct arterio-venous connections, thus missing the peri-tubular arterioles found in the cortex. That means that the tubules are deprived of blood and suffer. The mechanism of such a shunt is well-known in the skin where blood goes directly from arterioles to venules. However, no direct arterio-venous anastomosis has yet been demonstrated in the kidney. The x-ray pictures which have been used in support of this theory can be reproduced with the administration of adrenalin.

DISCUSSION

Question: Dr. Hayman what do you think of decapsulation and lavage via the peritoneum, colon, pleural cavity etc. for the treatment of uremic states?

Answer: Years ago we used to try decapsulation for bichloride poisoning. The idea was that the kidney was swollen. The swelling was interfering with renal flow. No evidence has been offered to support this theory. At present I find no indication for decapsulation. The question of peritoneal irrigations. That is a logical procedure to do in a man with an acute renal lesion. If you keep him alive long enough his kidneys will recover. You can definitely lower the blood urea nitrogen by peritoneal irrigation. You get into so many other difficulties however with peritoneal irrigation. Inflammation occurs despite meticulous care, as well as disturbances of electrolyte balance. It takes at least two Medical Officers, three Nurses, and four Chemists working 24 hours a day to attempt this

procedure. Most of the reports on peritoneal irrigations have had a lot of interesting data but few patients have survived. Those who have survived have probably done so in spite of peritoneal irrigations. The National Research Council spent a lot of time on peritoneal irrigations and finally gave it up.

You have probably all seen the pictures in "Life" of the artificial kidney. Such an arrangement is quite clumsy requiring considerable space and equipment. At present a more compact arrangement utilizing an opposing series of tubes separated by a material which acts as a dialyzing membrane has been used in the dog, which may prove more manageable clinically. Any such artificial kidney requires the use of heparin to prevent clotting and in itself imposes a danger.

XII. The Poliomyelitis Patient by Miss Dionisia Madrid, R.N., 10th Gen Hosp, APO 1105

Poliomyelitis is an acute infectious disease, caused by a filterable virus. Because it usually affects children and young adults, it is frequently known as "Infantile Paralysis".

The disease has been known from about 1600 B.C., as evidenced in Egyptian stone art of that period, and was pictured in Middle Age paintings. It was first described by Underwood, a British doctor in 1784; later by Badheim in 1835, and Heine in the 1850's.

Poliomyelitis is widely distributed in many parts of the world, usually in the temperate zones, with larger outbreaks and epidemics in the late spring and fall, but occasional cases are found throughout the year.

No organism has been isolated as the causative agent. Research has proved that a filterable virus, too small to be seen by an ordinary microscope, when photographed and magnified 75,000 times, will show an oval body, which some investigators believe to be the virus itself, others believe it to be a protein molecule to which the virus is adherent. The virus appears in large quantities in the stool, to a lesser extent in the pharyngeal secretions. It has been recovered from the brain, but does not appear in urine or spinal fluid. The virus has been recovered from the stool of apparently healthy persons.

Poliomyelitis is pathogenic only to man and monkeys; attempts to produce the diseases in laboratory animals have been inconclusive information, not applicable to man, due to the change in the virus in its passage through laboratory animals.

The virus attacks only nerve tissue, principally the nerve cell itself. The term "anterior Poliomyelitis" refers to the anterior horn cells of the spinal cord which are frequently affected. The several generally recognized types are: abortive, spinal paralytic, bulbar, and encephalitic. There may be combinations of the spinal, bulbar and encephalitic types.

The mortality varies greatly. During epidemics the death rate may be as high as 25%; at other times, about 10%. Early recognition and treatment play a large part in reducing the rate. It has been estimated that at least ten times as many children and young adults are infected by the virus as ever develop a frank diagnosable attack; some investigators claim it is as common as the "common cold".

The treatment of Poliomyelitis is largely symptomatic, since there is no known effective drug, serum or immunizing agent. As it is primarily a disease of the nervous system, physical and mental rest are especially important. The patient must have a warm, quiet and unstimulating environment; care in a hospital is indicated whenever possible. The sicker the patient is, the more extensive and time consuming treatments are required, and the harder it is to provide the adequate real rest to him. Constant observation and treatment are very necessary during the acute phase, which roughly lasts about two weeks.

Measures taken to relieve the patient, depend largely on the various groups of muscles affected. General medical management in regards to diet, fluids and elimination are similar to any acute ferile disease, using isolation technique, with decontamination.

1. Involvement of lower trunk and the extremities:

During the acute stage: Handle the patient as little as possible, always supporting and protecting the painful members. Omit baths during the painful spasms; likewise alcohol rubs and massage. Stop any care before the patient shows signs of fatigue. The patient's positions should

be turned from side to side three or four times daily, and if feasible, he should lie on his stomach twice daily. Care should be taken that the patient does not arch his back when using the bedpan - he should be carefully rolled on his side, the bedpan placed in position, pillows placed above and below it and the patient carefully rolled on his back again. Temporary positions may be assumed with the use of pillows as props to ease spasms. The patient should not be allowed to feed himself and drinking tubes are not permitted. When the acute stage passes and the painful spasms disappear, the patient is allowed some freedom of movement, always keeping him in normal alignment at all times with the aid of pillows, rolled towels or rolled blankets. Hot packs are frequently used during acute stages and seem to aid in reducing the amount of pain. The physical therapist checks on the degree of muscular involvement and when so ordered by the Medical officer, starts the patient on various graduated exercises.

The position of the bed and bedside table should be changed from time to time so that the patient does not reach for things only in one direction.

2. Involvement of intercostal muscles and the diaphram:

In actual paralysis of the primary muscles, the lesions exist in the dorsal and cervical cord. Such cases should not be classed as bulbar. The Respirator is used early in these cases, in order to give rest to partially paralyzed muscles, and prevent respiratory failure from exhaustion. Hot packs may be used on these muscles, and the patient taught to breathe without using the neck muscles; there is a general tendency to place the patient in the Respirator much earlier than was formerly considered necessary. The general nursing care is similar to that outlined in the paragraph above except that the patient is never placed face down and he will need constant watching for extention of paralysis.

3. Bulbar involvement

The Bulbar type is the most serious and requires skillful management and observation. The Respirator is generally of little value, but occasionally it has been used successfully. Symptoms develop very fast, and the patient may expire without warning. Usually the first symptom is inability to swallow, or the pooling of mucus and saliva in the mouth. This necessitates the maintenance of a rubber airway, or in certain cases, an early tracheotomy, the use of the Respirator and Oxygen by nasal catheter. The patient is placed in Trendelenburg position to facilitate the drainage of secretions and suction is used for their removal when it is excessive. This type requires tube feeding which should be done by the doctor. The tracheotomy tube needs asceptic care with frequent cleansing of the inner trocar tube. As the patient improves he may lie prone during the daytime, but is returned to Trendelenburg position at night. Of equal importance with the physical care of the patient is the nurse's care of his mental distress. The nurse is the person most closely associated with him during the acute phase and should take time to allay his apprehension as new and unfamiliar treatments become necessary. He cannot be expected to cooperate if he does not understand the reasons for the things he is asked to do. From the beginning he should be led to appreciate the ways he himself can aid in his recovery. An effort should be made to make him feel the friendly interest in him as well as in his treatment. The nurse must remember the sudden acute illness in itself is a profound source of fear and depression, and in poliomyelitis this is intensified because of fear of crippling. Patients may be difficult to care for, uncooperative in treatment and unreasonable in demands, but the good nurse knows these attitudes are a part of the disease, and are the patient's reaction to his illness.

The nurse must be careful to give intelligent reassurance, but must not be too overly optimistic and thoughtlessly assure him that he will recover completely. The doctor will discuss with the patient what he wants him to know about his condition, and it is not the province of the nurse to exceed this limit. The emphasis should be on what the patient can do, and he should be helped to understand why the doctor cannot be more explicit about his prognosis in the beginning of his illness.

The removal of the patient from the Respirator, at the Doctor's order, may necessitate much encouragement from the nurse, for patients, particularly adults, become psychologically dependent on it.

Some patients will require further care in a convalescent home or hospital for varying periods, sometimes for a year or more, and the ground work laid by the nurse in teaching him good hygiene and posture, with the resolve to do his exercises faithfully will show.

XI. The Use of the Respirator in Poliomyelitis by 1st Lt Adelaide A. Davies, ANC, 10th General Hospital, APO 1105

Indications for use of the Respirator: The decision to place the patient in the Respirator must be made by the Medical Officer. The Nurse must be on constant watch for early symptoms of approaching respiratory paralysis, in order to report the condition to the doctor before symptoms of exhaustion appear, namely, cyanosis and other dyspnea.

1. Wakefulness, restlessness and increasing anxiety are of great significance, and may indicate approaching paralysis in the muscles of respiration.

2. The speech may be interrupted or monosyllabic, or the patient cannot count to ten without taking a breath.

3. Increase in pulse and respiration rates, combined with shallowness and a definite limitation in the movements of the chest wall may be observed.

4. Dilation of the nostrils and the use of auxiliary muscles, such as the sternocleidomastoids to lift the rib cage are danger signals.

Preparation of the patient for the Experience: For the severely involved patient, who is gasping, cyanotic and in obvious distress, the respirator is a life-saving device, and the important element is speed in placing him in it. The patient less severely afflicted, and who is conscious, should be told exactly what the respirator will do for him, what is expected of him, and why his cooperation is so urgently needed. He should understand that it is used to provide him with a rest, and a chance to get through the most taxing period of his illness without depleting his strength, that it is a temporary measure and will be dispensed with as soon as the acute stage of his disease is passed. The sight and sound may alarm the patient, so he needs reassurance that it will help him and that he will become adjusted to it.

A team of four people should be on hand to place an adult in the respirator. It requires teamwork and practice sessions should be held with Ward personnel with the machine and their duties in working swiftly and efficiently. Once in the respirator, the patient is never left alone.

Placing the patient in the Respirator:

1. Pull stretcher almost completely out of the body of the Respirator.

2. Transfer patient to the Stretcher carefully, clad in the minimum of easily removed clothing.

3. Put patient's head through diaphram. This requires four persons - two to stretch the diaphram widely, one to guide the patient's head through by turning it slightly to one side, keeping the chin down, and momentarily covering the nose as it passes through the opening, the fourth person lifts the patient's body slightly from the cot as the head is moved to prevent strain and pain in the neck and shoulder muscles.

4. A small pillow is placed under the patient's head, and the patient made as comfortable as possible by adjusting the collar low on his neck, well down towards the clavicles. Sheet wadding is used around the neck to prevent friction and irritation of the skin, and also serves to prevent leakage around the collar.

5. The cot mattress is pushed up to touch the upper end of the tank, with the shoulders protected by padding, to prevent strain and discomfort under the inadequately supported nock and shoulders.

6. If the case is an emergency, the tank is closed at once, all clamps secured and the motor started at once.

7. The patient's arms must be protected as the machine is closed. This is best done by crossing them on the chest.

8. A slightly inflated air cushion is placed under the coccyx to prevent a decubitus, as the patient may be in the Respirator for a long time.

9. The feet and legs are placed in good alignment, using a foot rest, sand bags, rolled towels under the knees and heels to prevent hyperextension, when indicated.

10. A constant watch is made of the machine, regulating it to the needs of the patient, and to be sure that it is giving the relief expected.

Nursing Care while in the Respirator: In caring for a patient with an acute respiratory condition, it may be necessary to postpone some nursing procedures until the patient has rested, become adjusted to the machine, and the embarrassment has been relieved, as evidenced by easier breathing, improved color and decreased pulse rate.

A restless patient requires padding around the elbows and legs to prevent injury to them from the sides of the tank.

The temperature remains high enough in the Respirator so that little or no covering is required beyond a loin cloth, and permits observation of the movements of the intercostals and diaphram.

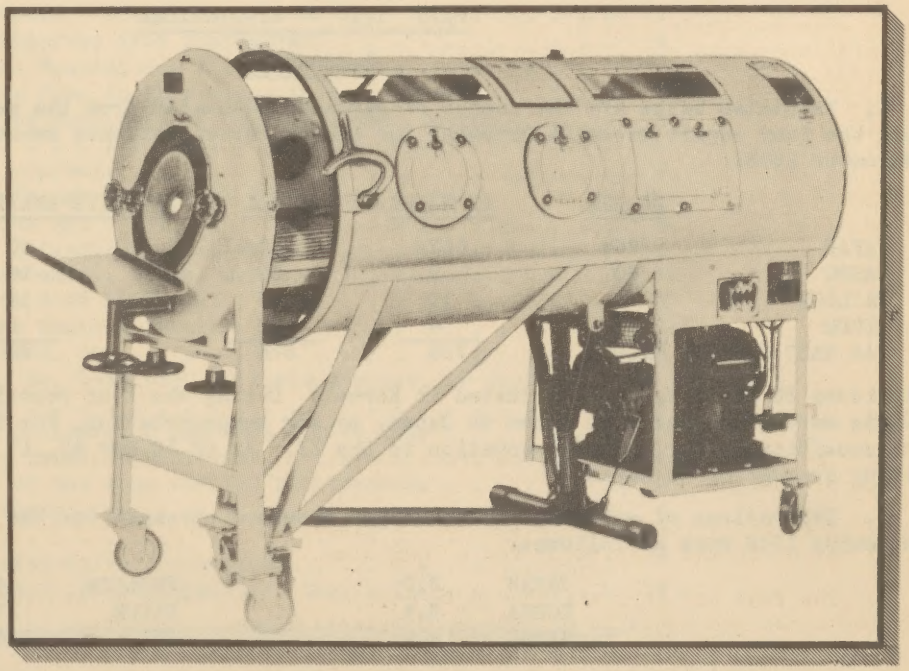
Before starting any nursing procedures, all equipment, medications, food or liquids, and sufficient personnel are assembled to work efficiently.

A. If the patient can safely be removed for nursing care: Have everything necessary at hand, and proceed as quickly as possible. The patient remains on the stretcher, with the collar in place in case speed becomes essential in returning him to the Respirator. Baths, back rubs, linen changing, enemata and feeding may be done at this time. A change of position is usually welcomed by the patient, and if the condition permits it, the head of the stretcher may be elevated slightly - the knees raised and supported by pillows, etc.

B. If the patient cannot be removed for a period without difficulty: Teamwork and speed are essential; a surprising amount of care may be given in a short time, and the patient returned to the Respirator. The doctor may hyper ventilate the patient before removal, and most patients can tolerate a short period out of the Respirator. At the first sign of distress, the patient is replaced in the tank, for many minor adjustments of padding, pillow arranging and position can be made through the ports.

C. If the patient cannot be removed at all: The Respirator is equipped with a sufficient number of ports so that necessary nursing care may be given the patient without removing him. Here again a team of three or four persons may accomplish the work more efficiently than one. Linen changing is avoided if possible, for it may cause too much strain on the patient. When necessary, it may be done. A nurse must be at the head of the stretcher to turn the patient's head with the body so that no torsion or twisting occurs.

Demonstration and Manipulation of the Respirator: The Collins Respirator, which is the type used in the 10th General Hospital in Manila, (picture below), has a large bellows made of heavy rubber attached to the underside of the tank. It operates by electric motor, the hand operation is also possible.



When the bellows expands to maximum capacity, the air pressure in the tank is lowered, producing "negative pressure", which exerts a mild suction on the thorax or abdomen, and air will rush into the lungs from the nose and throat, causing the lungs to expand as in normal respiration.

Negative pressure is registered on the clock like dial of the gauge to the left of the zero point -- 14 to 18 is considered adequate. This is the stage of inspiration. When the bellows collapse or fold up, air is forced back into the machine, and the pressure in the tank is

raised to about that of the outside atmospheric pressure. This is the stage of expiration, and the patient learns to talk, to swallow and if necessary, cough at this time.

The pressure inside the tank may be raised or lowered as necessary by turning the control knob on the right side of the machine.

When in the bulbar type there is paralysis of the pharyngeal muscles, with inability to swallow and the subsequent pooling of liquids in the throat, Trendelenburg position may be effected by operation of the jack at the foot of the tank to raise it to the desired degree, thus lowering the head of the patient.

Better drainage of the mucus and saliva is established if the stretcher and patient are rotated to one side. Care must be taken that the front wheels of the stretcher are securely locked in the correct position for rotation, and are returned to their normal position on the floor before the stretcher is again withdrawn from the tank.

By turning the small hand crank located near the head of the stretcher a modified semi-Fowler's position may be obtained, this position being helpful when spoonfeeding a patient with a partially paralyzed pharynx. Care must then be taken that there is adequate pillow support under the patient's head, and necessitating an adjustment of the collar upward by releasing the clamps of the frame holding it in place.

When, because of electrical power failure, hand operation must be instituted, the hand pump will be found under the forward right side of the machine. The Respirator bellows is operated by means of two level bars, which are connected at the forward end by a box-like clamp and hand wheel. As soon as the machine stops working the pressure inside the tank may be lowered by removing the small plug at the top of the tank until hand operation is begun. After turning the hand wheel, the clamp is loosened and pulled up to the stop pin on the longer of the two lever bars; the levers are then disconnected and the handle for manual operation inserted into the box clamp and the hand wheel tightened. A steady stroke of 14-16 per minute will be necessary. As this is a very tiring task, frequent relief periods will be necessary for the operator.

The 10th General Hospital is fortunately provided with an emergency electrical system, outlets are provided in the Respirator Room, and designated by a green light which warns of regular power failure and it is easy to transfer the plug to the emergency system until the regular power returns.

PART III - STATISTICAL

Evacuation

1. Tabulated below are the number of patients evacuated from the major commands to the ZI during the four report weeks in November and the number of patients awaiting evacuation as of 26 November 1948:

	BY AIR	BY WATER	TOTAL	PATIENTS AWAITING EVACUATION
JAPAN	20*	242*	262*	40
MARBO	60	0	60	14
PHILCOM	8	19	27	11
RYCOM	21	4	25	5
FAR EAST COMMAND	109	265	374	70

(* Includes 53 patients who originated in Korea.) During the four report weeks in November, 153 patients were evacuated from Korea to Japan, by air transportation, for further hospitalization and disposition or for onward evacuation to the ZI. As of 26 Nov 48, 11 patients in Korea were awaiting evacuation to Japan

2. Evacuations of military personnel per thousand strength for the period 30 October to 26 November 1948 were as follows:

JAPAN	2.0	PHILCOM	.83
KOREA	6.4	RYCOM	.90
MARBO	2.4	FEC	1.8

Hospitalization

1. The bed status as of 26 November 1948 was as follows:

	Total T/O Beds Authorized	Total T/O Beds Establ.	Total T/O Beds Occupd	% Authorized T/O Beds Occupd	% of Establ. Beds Occupd
JAPAN	4,450	4,200	2,427	55	58
KOREA	900	559	181	20	32
MARBO	825	500	325	39	65
PHILCOM	1,600	1,520	858	54	56
RYCOM	750	445	309	41	69
FEC	8,525	7,224	4,100	48	57

2. Admission rates per 1,000 troops per annum for the four weeks period ending 26 November 1948 were as follows:

	FEC	JAPAN	KOREA	MARBO	PHILCOM	RYCOM
All Causes	570	701	655	289	495	294
Disease	513	636	612	234	438	255
Injury	57	65	43	56	57	39
Psychiatric	14	15	16	12	18	4.7
Common Respiratory Disease	81	104	105	20	95	4.7
Influenza	.55	.54	0	.54	1.7	0
Primary Atypical Pneumonia	3.8	4.7	5.5	3.8	1.1	.59
Common Diarrhea	3.6	1.8	6.0	0	8.0	8.2
Bacillary Dysentery	1.5	0	1.6	0	3.4	7.6
Amebic Dysentery	1.1	0	2.2	0	6.3	.59
Malaria	3.0	.41	2.2	.54	11	8.8
Infectious Hepatitis	4.8	3.5	18	2.2	4.6	0
Mycotic Dermatoses	5.1	7.7	5.5	0	2.3	1.8
Rheumatic Fever	.41	.68	0	0	.57	0
Venereal Disease	109	140	169	12	53	73

I N D E X

	PAGE
Announcement of Tentative Courses for Medical Department Officers - Fiscal Year 1950.	1
Army Nurse Corps Observes 48th Anniversary	6
Blood Ethyl Alcohol Requisition Slip	7
Civil Service Posts Open to Physicians in Canal Zone	7
Clarification of Instructions for Monthly Dental Report.	8
Dental Service	5
Indexing Japanese Journals	9
Inquiries from Draft-Age Doctors on their Status under Selective Service Act	6
Length of Stay of Patients in Hospitals.	11
Medical Assistants School, Osaka, Japan.	4
Mold Preventive for Book Bindings.	9
Organization of the Medical Section.	1
Poliomyelitis Patient, the	16
Rationing of Stock No. 1-352-350, Pitocin Ampules, 10 Oxytocic Units, lcc. 25s	9
Recall of Reserve Officers to Extended Active Duty	5
Recent Advances in Renal Physiology.	14
Recent Department of the Army and FEC Publications	9
72% Medical Rejections.	6
Statistical.	20
3rd Hospital Administrative Corps Class.	7
Use of the Respirator in Poliomyelitis, the.	18

4205—FEC Printing Plant—1/49—2M

18 FEB 1949
ARMY MEDICAL LIBRARY
WASHINGTON, D. C.

Major General Bethea extends an invitation to all personnel of the Medical Department to prepare and forward, with view to publication, articles of professional or administrative nature. It is assumed that editorial privilege is granted. Copy should be forwarded so as to reach the Medical Section, GHQ, FEC, not later than the 10th of the month preceding the issue in which publishing is desired.

Capt. Vincent I. Hack, Editor